

# PME271M/E

- EMI suppressor, classes X1 and X2, metallized paper
- 0.001 – 0.6  $\mu\text{F}$ , 275/300 VAC, +110 °C

- The highest possible safety regarding active and passive flammability.
- Self-extinguishing UL 94V-0 encapsulation material.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.

- Good resistance to ionisation due to impregnated dielectric.
- High dU/dt capability.
- Small dimensions.
- Safety approvals for worldwide use.
- The capacitors meet the most stringent IEC humidity class, 56 days.

- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

## TYPICAL APPLICATIONS

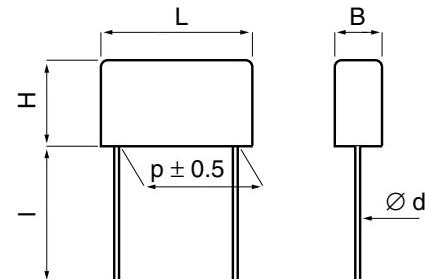
The capacitors are intended for use as interference suppressors in X1 or X2 (across-the-line) applications.

## CONSTRUCTION

Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.

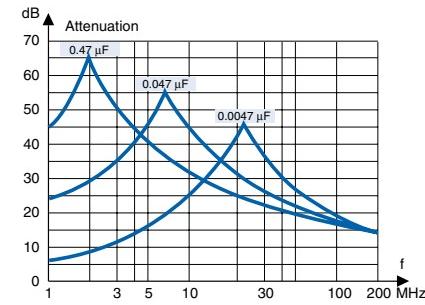
## TECHNICAL DATA

	PME271M	PME271E
Rated voltage VAC, 50/60Hz	275	300
Capacitance range $\mu\text{F}$	0.001–0.6	0.01–0.22
Temperature range °C	-40/+110	-40/+110
Climatic category IEC	40/110/56/B	40/110/56/B
Capacitance tolerance	$\pm 10\%$ for $C > 0.1 \mu\text{F}$ , code K. $\pm 20\%$ for $C \leq 0.1 \mu\text{F}$ , code M	
Approvals	S, N, D, FI, VDE, SEV, IMQ, UL, CSA	
Dissipation factor $\tan\delta$	$\leq 1.3\%$ at 1 kHz	
Insulation resistance	$C \leq 0.33 \mu\text{F} \geq 12000 \text{ M}\Omega$ $C > 0.33 \mu\text{F} \geq 4000 \text{ s}$ Measured at 500 VDC after 60 s, +23°C	
In DC applications	Recommended voltage: $\leq 630 \text{ VDC}$	
Resonance frequency	Tabulated self-resonance frequencies $f_0$ refer to 5 mm lead lengths.	
Test voltage between terminals	The 100% screening factory test is carried out at 2150 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.	



$d = 0.6$  for  $p = 10.2$   
 $0.8$  for  $p = 15.2, 20.3, 22.5$   
 $1.0$  for  $p = 25.4$

$I =$  standard 30 +5/-0 mm (code R30)  
option short leads, tolerance +0/-1 mm  
(standard 6 mm, code R06)  
Other lead lengths on request.



Suppression versus frequency. Typical values.

## ENVIRONMENTAL TEST DATA

Vibration	IEC 60068-2-6, Test Fc	3 directions at 2 hour each, 10 – 500 Hz at 0.75 mm or 98 m/s <sup>2</sup>	No visible damage, No open or short circuit
Bump	IEC 60068-2-29, Test Eb	4000 bumps at 390 m/s <sup>2</sup>	No visible damage, No open or short circuit
Solderability	IEC 60068-2-20, Test Ta	Solder globule method	Wetting time for $d \leq 0.8 < 1 \text{ s}$ for $d > 0.8 < 1.5 \text{ s}$
Active flammability	EN 132400		
Passive flammability	IEC 60384-14 (1993), EN 132400		
Humidity	IEC 60068-2-3, Test Ca	+40°C and 90 – 95% R.H.	56 days

## ARTICLE TABLE

Capaci- tance µF	Max dimensions in mm				Quantity per package				Approvals									
	B	H	L	p	R30 pcs	R06 pcs	reel taped pcs	Weight g	f <sub>o</sub> MHz	Max dU/dt V/µs	s	IEC	VDE	SEV	IMQ	UL	CSA	Article code
<b>CLASS X2 275 VAC +110 °C PME271 M</b>																		
0.0010	3.9	7.5	13.5	10.2	1000	2000	700	0.7	53	1200	✓	✓	✓	✓	✓	✓	✓	PME271M410MR30
0.0015	3.9	7.5	13.5	10.2	1000	2000	700	0.7	44	1200	✓	✓	✓	✓	✓	✓	✓	PME271M415MR30
0.0022	3.9	7.5	13.5	10.2	1000	2000	700	0.7	37	1200	✓	✓	✓	✓	✓	✓	✓	PME271M422MR30
0.0033	4.1	8.2	13.5	10.2	1000	2000	600	0.9	30	1200	✓	✓	✓	✓	✓	✓	✓	PME271M433MR30
0.0047	5.1	10.5	13.5	10.2	800	1600	600	1.2	24	1200	✓	✓	✓	✓	✓	✓	✓	PME271M447MR30
0.0068	5.2	10.5	18.5	15.2	500	1000	600	1.7	19	1200	✓	✓	✓	✓	✓	✓	✓	PME271M468MR30
0.010	5.2	10.5	18.5	15.2	500	1000	600	1.7	16	1200	✓	✓	✓	✓	✓	✓	✓	PME271M510MR30
0.015	5.2	10.5	18.5	15.2	500	1000	600	1.7	13	1200	✓	✓	✓	✓	✓	✓	✓	PME271M515MR30
0.022	6.0	12.5	18.5	15.2	400	800	400	3.0	10	1200	✓	✓	✓	✓	✓	✓	✓	PME271M522MR30
0.033	6.0	12.5	18.5	15.2	400	800	400	3.0	8.4	1200	✓	✓	✓	✓	✓	✓	✓	PME271M533MR30
0.047	6.0	12.5	18.5	15.2	400	800	400	3.0	7.0	1200	✓	✓	✓	✓	✓	✓	✓	PME271M547MR30
0.068	7.8	13.5	18.5	15.2	400	800	400	3.3	5.6	1200	✓	✓	✓	✓	✓	✓	✓	PME271M568MR30
0.10	8.5	14.3	18.5	15.2	300	500	350	3.8	4.3	1200	✓	✓	✓	✓	✓	✓	✓	PME271MB6100MR30
0.10	7.6	14.0	24.0	20.3	250	1500	250	4.0	4.1	600	✓	✓	✓	✓	✓	✓	✓	PME271M610MR30
0.15	9.0	15.0	24.0	20.3	200	1200	250	5.0	3.4	600	✓	✓	✓	✓	✓	✓	✓	PME271M615KR30
0.22	11.3	16.5	24.0	20.3	150	1000	180	7.0	2.7	600	✓	✓	✓	✓	✓	✓	✓	PME271M622KR30
0.10	8.0	17.0	27.0	22.5	200	1200	250	5.5	3.9	600	✓	✓	✓	✓	✓	✓	✓	PME271MD6100MR30
0.15	8.0	17.0	27.0	22.5	200	1200	250	5.5	3.3	600	✓	✓	✓	✓	✓	✓	✓	PME271MD6150KR30
0.22	10.0	19.0	27.0	22.5	150	1000	200	7.5	2.6	600	✓	✓	✓	✓	✓	✓	✓	PME271MD6220KR30
0.27	12.0	22.0	27.0	22.5	100	800		10.0	2.3	400	✓	✓	✓	✓	✓	✓	✓	PME271MD6270KR30
0.33	12.0	22.0	27.0	22.5	100	800		10.0	2.1	400	✓	✓	✓	✓	✓	✓	✓	PME271MD6330KR30
0.27	10.5	17.3	30.5	25.4	100	1000		8.5	2.4	400	✓	✓	✓	✓	✓	✓	✓	PME271M627KR30
0.33	12.1	19.0	30.5	25.4	100	800		10.0	2.1	400	✓	✓	✓	✓	✓	✓	✓	PME271M633KR30
0.47	15.3	22.0	30.5	25.4	75	600		15.0	1.8	400	✓	✓	✓	✓	✓	✓	✓	PME271M647KR30
0.60	15.3	22.0	30.5	25.4	75	600		15.0	1.6	400	✓	✓	✓	✓	✓	✓	✓	PME271M660KR30
<b>CLASS X1 300 VAC +110 °C PME271 E</b>																		
0.010	5.2	10.5	18.5	15.2	500	1000	600	1.7	16	1200	✓	✓	✓	✓	✓	✓	✓	PME271E510MR30
0.015	5.2	10.5	18.5	15.2	500	1000	600	1.7	13	1200	✓	✓	✓	✓	✓	✓	✓	PME271E515MR30
0.022	7.3	13.0	19.0	15.2	400	800	400	3.0	9.8	1200	✓	✓	✓	✓	✓	✓	✓	PME271E522MR30
0.033	7.3	13.0	19.0	15.2	400	800	400	3.0	7.0	1200	✓	✓	✓	✓	✓	✓	✓	PME271E533MR30
0.047	8.5	14.3	18.5	15.2	300	500	350	3.8	6.4	1200	✓	✓	✓	✓	✓	✓	✓	PME271E547MR30
0.068	7.6	14.0	24.0	20.3	250	1500	250	4.5	5.2	600	✓	✓	✓	✓	✓	✓	✓	PME271E568MR30
0.10	11.3	16.5	24.0	20.3	150	1000	180	7.0	4.1	600	✓	✓	✓	✓	✓	✓	✓	PME271E610MR30
0.068	8.0	17.0	27.0	22.5	200	1200	250	5.5	4.7	600	✓	✓	✓	✓	✓	✓	✓	PME271ED5680MR30
0.10	8.0	17.0	27.0	22.5	200	1200	250	5.5	4.1	600	✓	✓	✓	✓	✓	✓	✓	PME271ED6100MR30
0.15	10.0	19.0	27.0	22.5	150	1000	200	5.5	3.2	600	✓	✓	✓	✓	✓	✓	✓	PME271ED6150KR30
0.22	12.0	22.0	27.0	22.5	100	800		5.5	2.5	600	✓	✓	✓	✓	✓	✓	✓	PME271ED6220KR30
0.15	10.6	16.1	30.5	25.4	150	1000		8.6	3.3	400	✓	✓	✓	✓	✓	✓	✓	PME271E615KR30
0.22	12.1	19.0	30.5	25.4	100	800		10.0	2.6	400	✓	✓	✓	✓	✓	✓	✓	PME271E622KR30

APPROVALS/REFERENCE DOCUMENTS			MARKING
Certification Body	Specification	Approval reference	
S	EN 132400	9834227-01 (X2), 9821105-01 (X1),	
N	EN 132400	P98102279 (X2), P98101874 (X1)	
D	EN 132400	308048 (X2), 307886 (X1),	
FI	EN 132400	203301 (X2), 202782 (X1),	
VDE	EN 132400	118230 (X2), 117365 (X1),	
SEV	EN 132400	99.7 70053.01 (X2), 99.7 70083.01(X1)	
IMQ	EN 132400	V 4699 (X2), V 4698 (X1),	
UL	UL 1283 ( $U_R = 250$ VAC) UL 1414 ( $U_R = 250$ VAC)	E 100117 (X2, X1) E 73869 (X2)	
CSA	C 22.2 No. 1 ( $U_R = 250$ VAC)	53108 (X2)	
ORDERING INFORMATION			
The article code for the standard part is given in the article table. For other options, see page 21.			
			Capacitors in standard design (lead length 30 mm) and with $L < 24$ mm and lead length 5 or 6 mm are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/package as per article table.
			Capacitors with $L \geq 24$ mm and lead length 5 or 6 mm are packed on trays piled in a box with dimensions 300 x 260 x 195 mm. Quantity/package as per article table.
			Reels with taped capacitors are packed 10 in a box with dimension 370 x 370 x 560 mm. The standard quantity/reel is for 360 mm reel. If 500 mm reel is required, it must be specified when ordering and the quantity is 2 x the given quantity.